CASE STUDY

primaryio

Industry: Telecom

Headquarters: London, UK

Partner: Bell Integration

Key challenges

- High utility costs in the data center
- Increasing VM performance
- Flash-like performance for a 1 PB HDD-based SAN array

Solution

PrimaryIO APA for VMware (server-side caching)

Business Results

- Reduced rack space required by providing a 70% uplift in hardware capacity
- Improved power consumption by lowering server capacity utilization rate on remaining servers to 30%
- Reduced licensing and support costs
- Improved VM performance and reduction of support issues
- Lowered CapEx through the use of PrimaryIO software and hardware (HDD disks and memory)

Vodafone slashes its utility bills, achieves costs savings, and improves performance with PrimaryIO APA for VMware

Overview

Vodafone Group plc (LSE: VOD), the seventh largest telephone operating company in the world, owns and operates networks in 26 countries and has partner networks in over 50 additional countries. With headquarters in London, it predominantly operates services in the regions of Asia, Africa, Europe, and Oceania.

Key Challenges

Vodafone's IT team identified high utility costs as a major challenge in its data center. Yet while wanting to reduce costs, they had to maintain their existing SLAs. The IT team recognized the constraints of its existing server and storage infrastructure, but given its limited budget, the team urgently started looking for a more flexible and affordable storage solution.

PrimaryIO channel partner Bell Integration was engaged by Vodafone to investigate innovative software-defined solutions that could deliver cost savings across all elements of Vodafone's next-generation data center, while preserving application service levels. Bell Integration and PrimaryIO identified that increasing VM density could lead to savings in terms of server consolidation and lowering power consumption. However, the main obstacle to VM density improvements was Vodafone's existing HDD-based SAN arrray. The division's servers had in excess of 1 PB data capacity. The nature of an all-flash project would not only be cost prohibitive but also take significant time and effort for an implementation.

Therefore, Vodafone required a storage solution that would work in their existing VMware and HDD-based storage environment. The solution had to be instantly deployable, cost-effective, easy-to-use, and scalable as per application requirement – all without operational complexity. Furthermore, the offering needed to avoid Vodafone being locked into any costly, proprietary hardware solutions.

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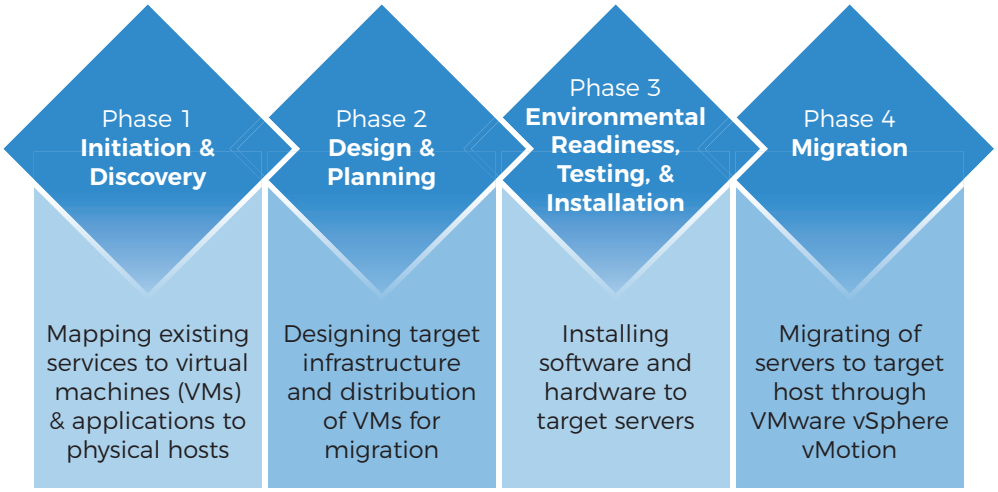
The Solution

Bell Integration introduced PrimaryIO APA for VMware server-side caching software to meet their need for 1) cost savings through consolidation, 2) cost avoidance through increases in available capacity, and 3) performance improvements without impact to service stability.

The team decided to implement the project in a phased approach, in order to measure results and course correct, if necessary. The four-phased approach included:



Business Results

After incorporating PrimaryIO for VMware into the data center environment, Vodafone generated the following results:

- Reduced rack space required by providing a 70% uplift in hardware capacity, based on CPU and memory, turning off 65% of the servers.
- Improved power consumption by lowering server capacity utilization rate on remaining servers to 30%, based on CPU and memory.
- Reduced licensing and support costs.
- Improved VM performance and reduction of support issues, based on storage QoS incidents.
- Lowered CapEx by using a combination of PrimaryIO software and hardware (HDD disks and memory).